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Sehn

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(54) **GALLERY OF MESSAGES FROM INDIVIDUALS WITH A SHARED INTEREST**

(71) Applicant: **Snapchat, Inc.**, Venice, CA (US)

(72) Inventor: **Timothy Sehn**, Marina Del Rey, CA (US)

(73) Assignee: **Snapchat, Inc.**, Venice, CA (US)

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6,724,403 B1	4/2004	Santoro et al.
6,757,713 B1	6/2004	Ogilvie et al.
6,898,626 B2	5/2005	Ohashi
7,027,124 B2	4/2006	Foote et al.
7,124,164 B1	10/2006	Chemtob
7,149,893 B1	12/2006	Leonard et al.
7,203,380 B2	4/2007	Chiu et al.
7,356,564 B2	4/2008	Hartselle et al.
7,519,670 B2	4/2009	Hagale et al.
8,001,204 B2	8/2011	Burtner et al.
8,112,716 B2	2/2012	Kobayashi
8,276,092 B1	9/2012	Narayanan et al.
8,279,319 B2	10/2012	Date

(Continued)

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H04L 29/08 (2006.01)
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(52) **U.S. Cl.**
CPC **H04L 51/14** (2013.01); **H04L 29/08072** (2013.01); **H04L 51/32** (2013.01)

(58) **Field of Classification Search**
USPC 709/203, 223–229, 231–233, 250
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,999,932 A	12/1999	Paul
6,154,764 A	11/2000	Nitta et al.
6,167,435 A	12/2000	Druckenmiller et al.
6,204,840 B1	3/2001	Petelycky et al.
6,216,141 B1	4/2001	Straub et al.
6,310,694 B1	10/2001	Okimoto et al.
6,353,170 B1	3/2002	Eyzaguirre et al.
6,484,196 B1	11/2002	Maurille
6,665,531 B1	12/2003	Soderbacka et al.

FOREIGN PATENT DOCUMENTS

WO	WO-2011040821 A1	4/2011
WO	WO-2015192026 A1	12/2015

(Continued)

OTHER PUBLICATIONS

iVisit, “iVisit Mobile Getting Started”, Dec. 4, 2013, iVisit, pp. 1-16.

(Continued)

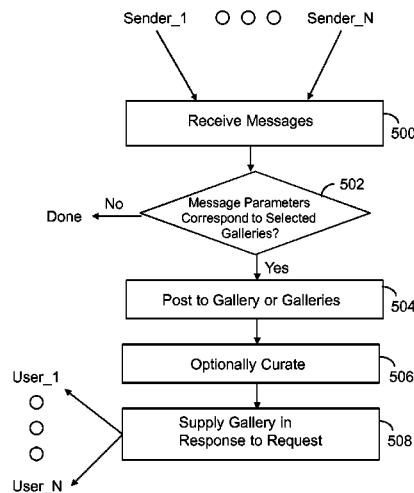
Primary Examiner — Zarni Maung

(74) *Attorney, Agent, or Firm* — Schwegman Lundberg & Woessner, P.A.

(57) **ABSTRACT**

A machine includes a processor and a memory connected to the processor. The memory stores instructions executed by the processor to receive a message and a message parameter indicative of a characteristic of the message, where the message includes a photograph or a video. A determination is made that the message parameter corresponds to a selected gallery, where the selected gallery includes a sequence of photographs or videos. The message is posted to the selected gallery in response to the determination. The selected gallery is supplied in response to a request.

20 Claims, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

8,312,086	B2	11/2012	Velusamy et al.	2010/0082693	A1	4/2010	Hugg et al.
8,312,097	B1	11/2012	Siegel et al.	2010/0131880	A1	5/2010	Lee et al.
8,379,130	B2	2/2013	Forutanpour et al.	2010/0131895	A1	5/2010	Wohlert
8,405,773	B2	3/2013	Hayashi et al.	2010/0159944	A1	6/2010	Pascal et al.
8,418,067	B2	4/2013	Cheng et al.	2010/0161831	A1	6/2010	Haas et al.
8,471,914	B2	6/2013	Sakiyama et al.	2010/0183280	A1	7/2010	Beauregard et al.
8,560,612	B2	10/2013	Kilmer et al.	2010/0185665	A1	7/2010	Horn et al.
8,744,523	B2	6/2014	Fan et al.	2010/0191631	A1	7/2010	Weidmann
8,745,132	B2	6/2014	Obradovich	2010/0214436	A1	8/2010	Kim et al.
8,775,972	B2	7/2014	Spiegel	2010/0223128	A1	9/2010	Dukellis et al.
8,788,680	B1	7/2014	Naik	2010/0223343	A1	9/2010	Bosan et al.
8,797,415	B2	8/2014	Arnold	2010/0257196	A1	10/2010	Waters et al.
8,856,349	B2	10/2014	Jain et al.	2010/0281045	A1	11/2010	Dean
8,909,725	B1	12/2014	Sehn	2010/0306669	A1	12/2010	Della Pasqua
9,094,137	B1	7/2015	Sehn et al.	2011/0004071	A1	1/2011	Faiola et al.
9,113,301	B1	8/2015	Spiegel et al.	2011/0040783	A1	2/2011	Uemichi et al.
2002/0047868	A1	4/2002	Miyazawa	2011/0040804	A1	2/2011	Peirce et al.
2002/0078456	A1	6/2002	Hudson et al.	2011/0050909	A1	3/2011	Ellenby et al.
2002/0122659	A1	9/2002	Mcgrath et al.	2011/0050915	A1	3/2011	Wang et al.
2002/0144154	A1	10/2002	Tomkow	2011/0102630	A1	5/2011	Rukes
2003/0016247	A1	1/2003	Lai et al.	2011/0145564	A1	6/2011	Moshir et al.
2003/0017823	A1	1/2003	Mager et al.	2011/0211534	A1	9/2011	Schmidt et al.
2003/0037124	A1	2/2003	Yamaura et al.	2011/0255736	A1	10/2011	Thompson et al.
2003/0052925	A1	3/2003	Daimon et al.	2011/0273575	A1	11/2011	Lee
2003/0164856	A1	9/2003	Prager et al.	2011/0283188	A1	11/2011	Farrenkopf
2004/0027371	A1	2/2004	Jaeger	2011/0320373	A1	12/2011	Lee et al.
2004/0111467	A1	6/2004	Willis	2012/0036443	A1*	2/2012	Ohmori et al. 715/736
2004/0203959	A1	10/2004	Coombes	2012/0054797	A1	3/2012	Skog et al.
2004/0243531	A1	12/2004	Dean	2012/0062805	A1	3/2012	Candelore
2005/0078804	A1	4/2005	Yomoda	2012/0108293	A1	5/2012	Law et al.
2005/0097176	A1	5/2005	Schatz et al.	2012/0110096	A1	5/2012	Smarr et al.
2005/0102381	A1*	5/2005	Jiang et al. 709/220	2012/0113272	A1	5/2012	Hata
2005/0104976	A1	5/2005	Currans	2012/0131507	A1	5/2012	Sparandara et al.
2005/0114783	A1	5/2005	Szeto	2012/0131512	A1	5/2012	Takeuchi et al.
2005/0122405	A1	6/2005	Voss et al.	2012/0143760	A1	6/2012	Abulafia et al.
2005/0193340	A1	9/2005	Amburgey et al.	2012/0165100	A1	6/2012	Lalancette et al.
2005/0193345	A1	9/2005	Klassen et al.	2012/0166971	A1	6/2012	Sachson et al.
2005/0198128	A1	9/2005	Anderson	2012/0169855	A1	7/2012	Oh
2005/0223066	A1	10/2005	Buchheit et al.	2012/0173991	A1	7/2012	Roberts et al.
2006/0114338	A1	6/2006	Rothschild	2012/0184248	A1	7/2012	Speede
2006/0270419	A1	11/2006	Crowley et al.	2012/0200743	A1	8/2012	Blanchflower et al.
2007/0040931	A1	2/2007	Nishizawa	2012/0210244	A1	8/2012	De Francisco Lopez et al.
2007/0073823	A1	3/2007	Cohen et al.	2012/0212632	A1	8/2012	Mate et al.
2007/0082707	A1	4/2007	Flynt et al.	2012/0220264	A1	8/2012	Kawabata
2007/0192128	A1	8/2007	Celestini	2012/0233000	A1	9/2012	Fisher et al.
2007/0214216	A1	9/2007	Carrer et al.	2012/0236162	A1	9/2012	Imamura
2007/0233801	A1	10/2007	Eren et al.	2012/0239761	A1	9/2012	Linner et al.
2007/0243887	A1	10/2007	Bandhole et al.	2012/0278387	A1	11/2012	Garcia et al.
2007/0255456	A1	11/2007	Funayama	2012/0278692	A1	11/2012	Shi
2008/0025701	A1	1/2008	Ikeda	2012/0299954	A1	11/2012	Wada et al.
2008/0033930	A1	2/2008	Warren	2012/0307096	A1	12/2012	Bray et al.
2008/0049704	A1	2/2008	Witteman et al.	2012/0323933	A1	12/2012	He et al.
2008/0104503	A1	5/2008	Beall et al.	2013/0024757	A1	1/2013	Doll et al.
2008/0207176	A1	8/2008	Brackbill et al.	2013/0045753	A1	2/2013	Obermeyer et al.
2008/0208692	A1	8/2008	Garaventi et al.	2013/0050260	A1	2/2013	Reitan
2008/0222545	A1	9/2008	Lemay	2013/0057587	A1	3/2013	Leonard et al.
2008/0256446	A1	10/2008	Yamamoto	2013/0059607	A1	3/2013	Herz et al.
2008/0256577	A1	10/2008	Funaki et al.	2013/0060690	A1	3/2013	Oskolkov et al.
2008/0266421	A1	10/2008	Takahata et al.	2013/0063369	A1	3/2013	Malhotra et al.
2008/0270938	A1	10/2008	Carlson	2013/0067027	A1	3/2013	Song et al.
2008/0313346	A1	12/2008	Kujawa et al.	2013/0071093	A1	3/2013	Hanks et al.
2009/0006565	A1	1/2009	Velusamy et al.	2013/0085790	A1	4/2013	Palmer et al.
2009/0015703	A1	1/2009	Kim et al.	2013/0090171	A1*	4/2013	Holton et al. 463/42
2009/0024956	A1	1/2009	Kobayashi	2013/0095857	A1	4/2013	Garcia et al.
2009/0040324	A1	2/2009	Nonaka	2013/0104053	A1*	4/2013	Thornton et al. 715/752
2009/0042588	A1	2/2009	Lottin et al.	2013/0111514	A1	5/2013	Slavin et al.
2009/0058822	A1	3/2009	Chaudhri	2013/0128059	A1	5/2013	Kristensson
2009/0079846	A1	3/2009	Chou	2013/0145286	A1	6/2013	Feng et al.
2009/0089678	A1	4/2009	Sacco et al.	2013/0169822	A1	7/2013	Zhu et al.
2009/0132453	A1	5/2009	Hangartner et al.	2013/0173729	A1	7/2013	Starenky et al.
2009/0132665	A1	5/2009	Thomsen et al.	2013/0182133	A1	7/2013	Tanabe
2009/0157752	A1	6/2009	Gonzalez	2013/0185131	A1	7/2013	Sinha et al.
2009/0160970	A1	6/2009	Fredlund et al.	2013/0194301	A1	8/2013	Robbins et al.
2009/0177299	A1	7/2009	Van De Sluis	2013/0222323	A1	8/2013	Mckenzie
2009/0265647	A1	10/2009	Martin et al.	2013/0227476	A1	8/2013	Frey
				2013/0232194	A1	9/2013	Knapp et al.
				2013/0263031	A1	10/2013	Oshiro et al.
				2013/0265450	A1	10/2013	Barnes, Jr.
				2013/0267253	A1	10/2013	Case et al.

(56)

References Cited**U.S. PATENT DOCUMENTS**

2013/0290443	A1	10/2013	Collins et al.	
2013/0304646	A1*	11/2013	de Geer	705/44
2013/0344896	A1	12/2013	Kirmse et al.	
2013/0346869	A1	12/2013	Asver et al.	
2013/0346877	A1	12/2013	Borovoy et al.	
2014/0011538	A1	1/2014	Mulcahy et al.	
2014/0019264	A1	1/2014	Wachman et al.	
2014/0032682	A1	1/2014	Prado et al.	
2014/0047016	A1*	2/2014	Rao	709/203
2014/0047045	A1	2/2014	Baldwin et al.	
2014/0047335	A1	2/2014	Lewis et al.	
2014/0049652	A1	2/2014	Moon et al.	
2014/0052485	A1	2/2014	Shidfar	
2014/0052633	A1	2/2014	Gandhi	
2014/0057660	A1	2/2014	Wager	
2014/0082651	A1	3/2014	Sharifi	
2014/0122658	A1	5/2014	Haeger et al.	
2014/0122787	A1	5/2014	Shalvi et al.	
2014/0129953	A1	5/2014	Spiegel	
2014/0143143	A1	5/2014	Fasoli et al.	
2014/0149519	A1	5/2014	Redfern et al.	
2014/0155102	A1	6/2014	Cooper et al.	
2014/0173457	A1	6/2014	Wang et al.	
2014/0189592	A1	7/2014	Benchenaa et al.	
2014/0207679	A1	7/2014	Cho	
2014/0214471	A1	7/2014	Schreiner, III	
2014/0222564	A1	8/2014	Kranendonk et al.	
2014/0279061	A1	9/2014	Elimeliah et al.	
2014/0279436	A1	9/2014	Dorsey et al.	
2014/0280537	A1	9/2014	Pridmore et al.	
2014/0282096	A1	9/2014	Rubinstein et al.	
2014/0317302	A1	10/2014	Naik	
2014/0325383	A1	10/2014	Brown et al.	
2015/0046278	A1	2/2015	Pei et al.	
2015/0071619	A1	3/2015	Brough	
2015/0087263	A1	3/2015	Branscomb et al.	
2015/0088622	A1	3/2015	Ganschow et al.	
2015/0350136	A1	12/2015	Flynn, III et al.	
2015/0365795	A1	12/2015	Allen et al.	
2015/0378502	A1	12/2015	Hu et al.	
2016/0099901	A1	4/2016	Allen et al.	

FOREIGN PATENT DOCUMENTS

WO	WO-2016054562	A1	4/2016
WO	WO-2016065131	A1	4/2016

OTHER PUBLICATIONS

Melanson, Mike, "This text message will self destruct in 60 seconds", available on Feb. 11, 2011, retrieved from readwrite.com on Feb. 18, 2015, link: http://readwrite.com/2011/02/11/this_text_message_will_self_destruct_in_60_seconds, referred to hereinafter as READ-WRITE.

Sawers, Paul, "Snapchat for iOS Lets You Send Photos to Friends and Set How long They're Visible for", May 7, 2012, <<http://thenextweb.com/apps/2012/05/07/Snapchat-for-ios-lets-you-send-photos-to-friends-and-set-how-long-theyre-visiblefor/#!xCjrp>>, pp. 1-5.

U.S. Appl. No. 14/808,283, filed Jul. 24, 2015, Prioritization of Messages Within Gallery.

"U.S. Appl. No. 14/304,855, Final Office Action mailed Feb. 18, 2015", 10 pgs.

"U.S. Appl. No. 14/304,855, Non Final Office Action mailed Mar. 18, 2015", 9 pgs.

"U.S. Appl. No. 14/304,855, Non Final Office Action mailed Oct. 22, 2014", 11 pgs.

"U.S. Appl. No. 14/304,855, Notice of Allowance mailed Jun. 1, 2015", 11 pgs.

"U.S. Appl. No. 14/304,855, Response filed Feb. 25, 2015 to Final Office Action mailed Feb. 18, 2015", 5 pgs.

"U.S. Appl. No. 14/304,855, Response filed Apr. 1, 2015 to Non Final Office Action mailed Mar. 18, 2015", 4 pgs.

"U.S. Appl. No. 14/304,855, Response filed Nov. 7, 2014 to Non Final Office Action mailed Oct. 22, 2014", 5 pgs.

"U.S. Appl. No. 14/505,478, Advisory Action mailed Apr. 14, 2015", 3 pgs.

"U.S. Appl. No. 14/505,478, Final Office Action mailed Mar. 17, 2015", 16 pgs.

"U.S. Appl. No. 14/505,478, Non Final Office Action mailed Jan. 27, 2015", 13 pgs.

"U.S. Appl. No. 14/505,478, Response filed Jan. 30, 2015 to Non Final Office Action mailed Jan. 27, 2015", 10 pgs.

"U.S. Appl. No. 14/505,478, Response filed Apr. 1, 2015 to Final Office Action mailed Mar. 17, 2015", 6 pgs.

"U.S. Appl. No. 14/523,728, Non Final Office Action mailed Dec. 12, 2014", 10 pgs.

"U.S. Appl. No. 14/523,728, Notice of Allowance mailed Mar. 24, 2015", 8 pgs.

"U.S. Appl. No. 14/523,728, Notice of Allowance mailed Apr. 15, 2015", 8 pgs.

"U.S. Appl. No. 14/523,728, Notice of Allowance mailed Jun. 5, 2015", 8 pgs.

"U.S. Appl. No. 14/523,728, Response filed Aug. 25, 2014 to Non Final Office Action mailed Jan. 16, 2015", 5 pgs.

"U.S. Appl. No. 14/529,064, Non Final Office Action mailed Mar. 12, 2015", 20 pgs.

"U.S. Appl. No. 14/529,064, Response filed Feb. 5, 2015 to Restriction Requirement mailed Feb. 2, 2015", 6 pgs.

"U.S. Appl. No. 14/529,064, Response filed Mar. 26, 2015 to Non Final Office Action mailed Mar. 12, 2015", 8 pgs.

"U.S. Appl. No. 14/529,064, Restriction Requirement mailed Feb. 2, 2015", 5 pgs.

"U.S. Appl. No. 14/578,271, Restriction Requirement mailed Apr. 23, 2015", 8 pgs.

"iVisit Mobile Getting Started", iVisit, (Dec. 4, 2013), 1-16.

Melanson, Mike, "This text message will self destruct in 60 seconds", readwrite.com, [Online]. Retrieved from the Internet: <http://readwrite.com/2011/02/11/this_text_message_will_self_destruct_in_60_seconds>, (Feb. 18, 2015).

Sawers, Paul, "Snapchat for iOS Lets You Send Photos to Friends and Set How long They're Visible for", [Online]. Retrieved from the Internet: <<http://thenextweb.com/apps/2012/05/07/Snapchat-for-ios-lets-you-send-photos-to-friends-and-set-how-long-theyre-visiblefor/#!xCjrp>>, (May 7, 2012), 1-5.

U.S. Appl. No. 14/612,692, filed Feb. 3, 2015, Multichannel System.

U.S. Appl. No. 14/505,478, filed Oct. 2, 2014, Ephemeral Gallery of Ephemeral Messages.

U.S. Appl. No. 14/578,271, filed Dec. 19, 2014, Gallery of Videos Set to an Audio Time Line.

U.S. Appl. No. 14/634,417, filed Feb. 27, 2015, Ephemeral Gallery of Ephemeral Messages With Opt-In Permanence.

U.S. Appl. No. 14/304,855, filed Jun. 13, 2014, Geo-Location Based Event Gallery.

U.S. Appl. No. 14/738,069, filed Jun. 12, 2015, Geo-Location Based Event Gallery.

U.S. Appl. No. 14/523,728, filed Oct. 24, 2014, Priority Based Placement of Messages in a Geo-Location Based Event Gallery.

"U.S. Appl. No. 14/304,855, Corrected Notice of Allowance mailed Jun. 26, 2015", 8 pgs.

"U.S. Appl. No. 14/505,478, Non Final Office Action mailed Sep. 4, 2015", 19 pgs.

"U.S. Appl. No. 14/506,478, Response filed Aug. 17, 2015 to Advisory Action mailed Apr. 14, 2015", 10 pgs.

"U.S. Appl. No. 14/578,271, Final Office Action mailed Dec. 3, 2015", 15 pgs.

"U.S. Appl. No. 14/578,271, Non Final Office Action mailed Aug. 7, 2015", 12 pgs.

"U.S. Appl. No. 14/578,271, Response filed Jun. 19, 2015 to Restriction Requirement mailed Apr. 23, 2015", 6 pgs.

"U.S. Appl. No. 14/578,271, Response filed Oct. 28, 2015 to Non Final Office Action mailed Aug. 7, 2015", 9 pgs.

"U.S. Appl. No. 14/612,692, Examiner Interview Summary mailed Aug. 14, 2015", 3 pgs.

"U.S. Appl. No. 14/612,692, Final Office Action mailed Nov. 23, 2015", 15 pgs.

(56)

References Cited

OTHER PUBLICATIONS

"U.S. Appl. No. 14/612,692, Non Final Office Action mailed Jul. 20, 2015", 25 pgs.
 "U.S. Appl. No. 14/612,692. Response filed Oct. 19, 2015 to Non Final Office Action mailed Jul. 20, 2015", 11 pgs.
 "U.S. Appl. No. 14/808,283, Preliminary Amendment filed Jul. 24, 2015", 8 pgs.
 "International Application Serial No. PCT/US2015/035591, International Search Report mailed Aug. 11, 2015", 5 pgs.
 "International Application Serial No. PCT/US2015/035591, International Written Opinion mailed Aug. 11, 2015", 5 pgs.
 "International Application Serial No. PCT/US2015/053811, International Search Report mailed Nov. 23, 2015", 5 pgs.
 "International Application Serial No. PCT/US2015/053811, Written Opinion mailed Nov. 23, 2015", 8 pgs.
 "PearlEyes by Red Giant", © 2002-2015 Red Giant LLC, [Online]. Retrieved from the Internet: <URL: <http://www.redgiant.com/products/pluraleyes/>, (Accessed Nov. 11, 2015), 5 pgs.
 Castelluccia, Claude, et al., "EphPub: Toward robust Ephemeral Publishing", Network Protocols (ICNP), 2011 19th IEEE International Conference on, IEEE, (Oct. 17, 2011), 18 pgs.
 Clarke, Tangier, "Automatically syncing multiple clips and lots of audio like PluralEyes possible?", [Online]. Retrieved from the Internet: <URL: <https://forums.creativecow.net/thread/344/20553>, (May 21, 2013), 8 pgs.
 Sawers, Paul, "Snapchat for ios lets you send photos to friends and set how long they're visible for", <http://thenextweb.com/apps/2012/05/07/snapchat-for-ios-lets-you-send-photos-to-f riends-and-set-how-long-theyre-visible-for>, (May 2012), 1-3 pgs.
 Trice, Andrew, "My Favorite New Feature: Multi-Clip Sync in Premiere Pro CC", [Online]. Retrieved from the Internet: <URL: <http://www.tricedesigns.com/2013/06/18/my-favorite-new-feature-multi-cam-synch-in-premiere-pro-cc/>, (Jun. 18, 2013), 5 pgs.

"U.S. Appl. No. 14/578,271, Response filed Feb. 9, 2016 to Final Office Action mailed Dec. 3, 2015", 10 pgs.
 "U.S. Appl. No. 14/967,472, Preliminary Amendment filed Dec. 15, 2015", 6 pgs.
 "International Application Serial No. PCT/US2015/056884, International Search Report mailed Dec. 22, 2015", 5 pgs.
 "International Application Serial No. PCT/US2015/056884, Written Opinion mailed Dec. 22, 2015", 6 pgs.
 International Application Serial No. PCT/US2015/065821, International Search Report mailed Mar. 3, 2016, 2 pgs.
 International Application Serial No. PCT/US2015/065821, Written Opinion mailed Mar. 3, 2016, 6 pgs.
 U.S. Appl. No. 14/505,478, Notice of Allowance mailed May 18, 2016, 2 pgs.
 U.S. Appl. No. 14/505,478, Notice of Allowance mailed Apr. 28, 2016, 11 pgs.
 U.S. Appl. No. 14/505,478, Response filed Mar. 4, 2016 to Non Final Office Action mailed Sep. 4, 2015, 12 pgs.
 U.S. Appl. No. 14/612,692, Non Final Office Action mailed Mar. 28, 2016, 15 pgs.
 U.S. Appl. No. 14/738,069, Non Final Office Action mailed Mar. 21, 2016, 12 pgs.
 U.S. Appl. No. 14/808,283, Notice of Allowance mailed Apr. 12, 2016, 9 pgs.
 U.S. Appl. No. 15/137,608, Preliminary Amendment filed Apr. 26, 2016, 6 pgs.
 U.S. Appl. No. 15/152,975, Preliminary Amendment filed May 19, 2016, 8 pgs.

* cited by examiner

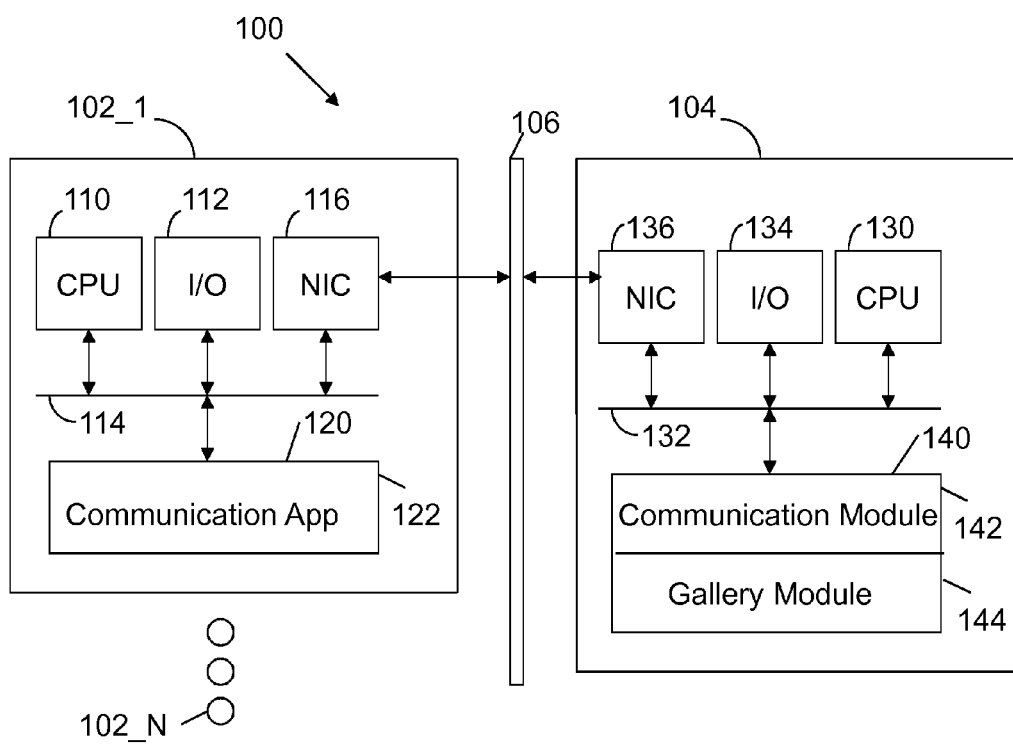


FIG. 1

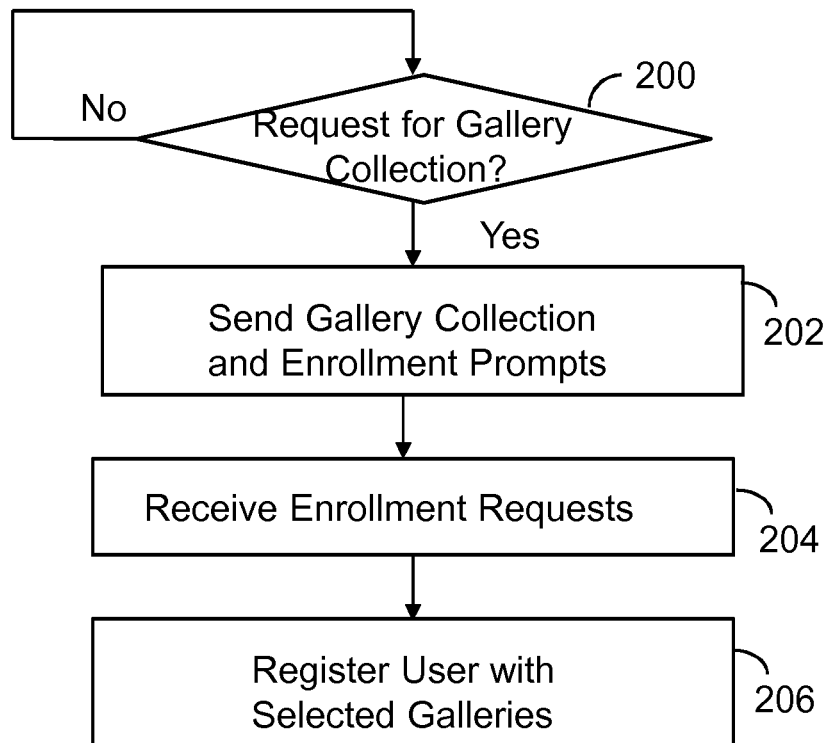


FIG. 2

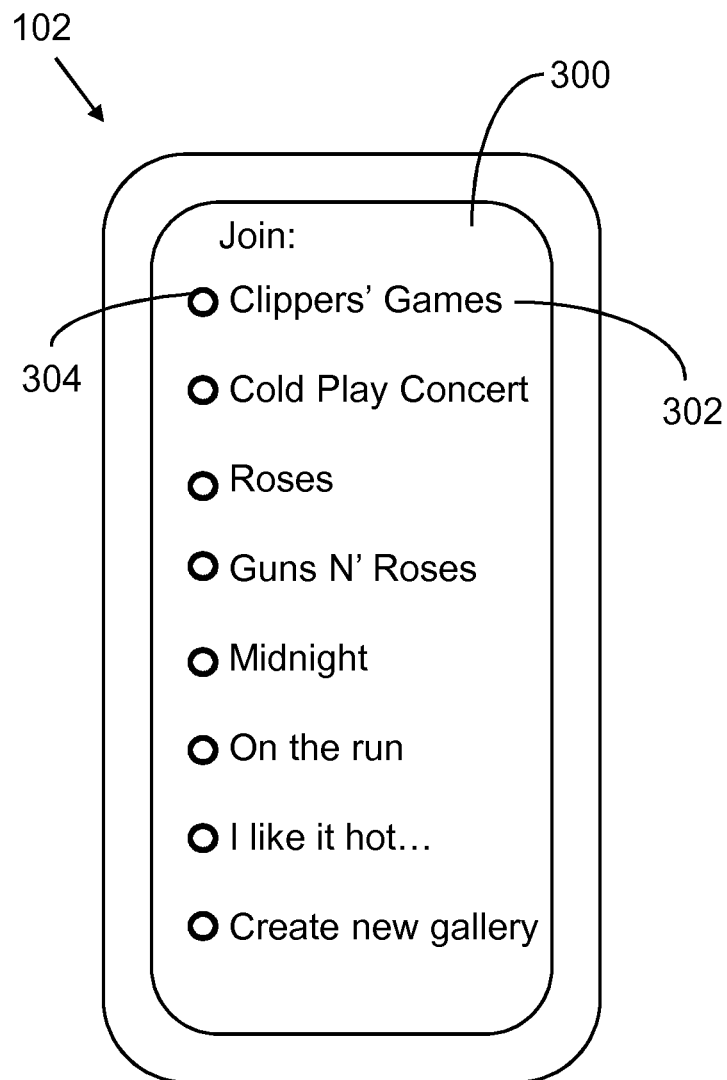


FIG. 3

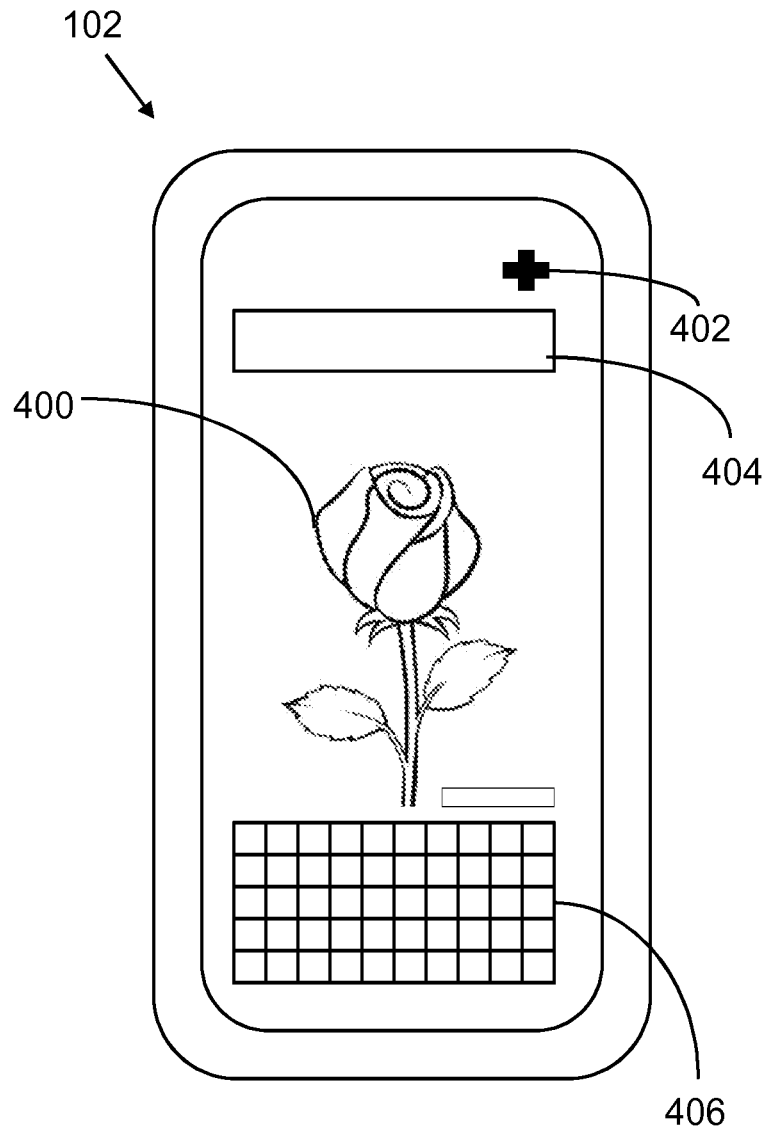


FIG. 4

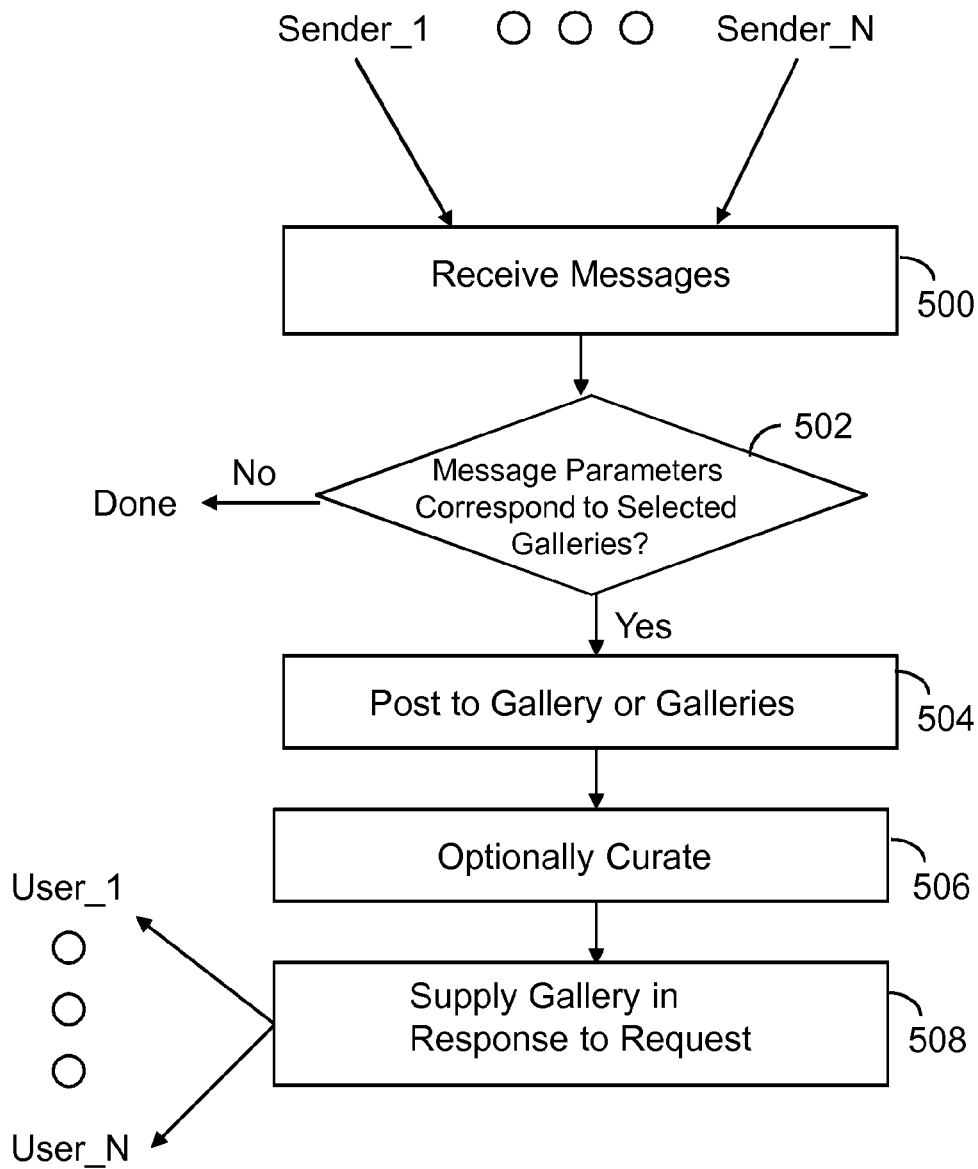


FIG. 5

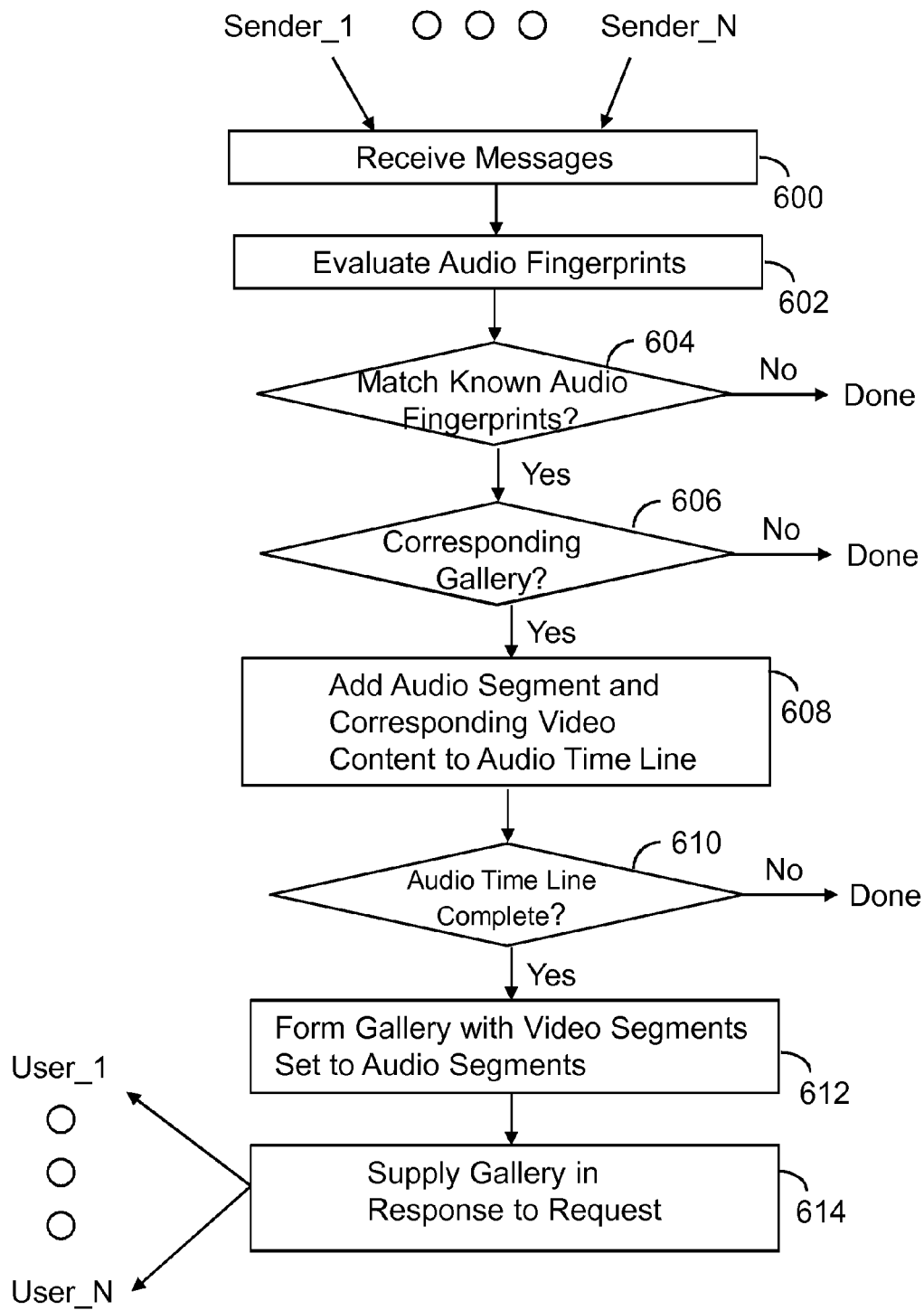


FIG. 6

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GALLERY OF MESSAGES FROM INDIVIDUALS WITH A SHARED INTEREST

FIELD OF THE INVENTION

This invention relates generally to exchanging electronic messages in a computer network. More particularly, this invention relates to a gallery of messages associated with a shared interest.

BACKGROUND OF THE INVENTION

Mobile devices, such as smartphones, are used to generate messages. The messages may be text messages, photographs (with or without augmenting text) and videos. Users can share such messages with individuals in their social network. However, there is no mechanism for automatically routing a message with content related to a shared interest to a gallery of messages.

SUMMARY OF THE INVENTION

A machine includes a processor and a memory connected to the processor. The memory stores instructions executed by the processor to receive a message and a message parameter indicative of a characteristic of the message, where the message includes a photograph or a video. A determination is made that the message parameter corresponds to a selected gallery, where the selected gallery includes a sequence of photographs or videos. The message is posted to the selected gallery in response to the determination. The selected gallery is supplied in response to a request.

BRIEF DESCRIPTION OF THE FIGURES

The invention is more fully appreciated in connection with the following detailed description taken in conjunction with the accompanying drawings, in which:

FIG. 1 illustrates a system configured in accordance with an embodiment of the invention.

FIG. 2 illustrates a registration process utilized in accordance with an embodiment of the invention.

FIG. 3 illustrates a gallery collection with enrollment prompts utilized in accordance with an embodiment of the invention.

FIG. 4 illustrates a message generation interface utilized in accordance with an embodiment of the invention.

FIG. 5 illustrates server side processing performed in accordance with an embodiment of the invention.

FIG. 6 illustrates server side processing associated with another embodiment of the invention.

Like reference numerals refer to corresponding parts throughout the several views of the drawings.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates a system **100** configured in accordance with an embodiment of the invention. The system **100** includes a set of client devices **102_1** through **102_N** and at least one server **104** connected via a network **106**. The network **106** may be any combination of wired or wireless networks.

Each client device **102** has standard components, such as a central processing unit **110** and input/output devices **112** connected via a bus **114**. The input/output devices **112** may include a touch display, dedicated control buttons, physical connectors, speakers and the like. A network interface circuit

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116 is also connected to the bus **114** and provides connectivity to network **106**. A memory **120** is also connected to the bus **114**. The memory **120** stores a communication application **122**. The communication application **122** includes instructions executed by CPU **110** to coordinate communications with server **104** and/or other client devices. In particular, the communication application **122** is operative with server **104** to exchange messages between client devices. The client device may be in the form of a tablet, smartphone, wearable technology, laptop computer or desktop computer.

The server **104** also includes standard components, such as a central processing unit **130**, a bus **132**, input/output devices **134** and a network interface circuit **136**. A memory **140** is connected to the bus **132**. The memory **140** stores a communication module **142**. The communication module **142** includes instructions executed by the CPU **130** to coordinate communications with client devices **102**. More particularly, the communication module **142** coordinates the exchange of messages between client devices **102**. The memory **140** also stores a gallery module **144**. The gallery module **144** includes instructions executed by the CPU **130** to store messages from individuals with a shared interest or some other association. Examples of types of associations contemplated by embodiments of the invention include photos or videos taken by users that include the same or similar object(s), such as guitar from a particular manufacturer, a designer handbag, a soft drink or beer can, etc. The messages form a gallery, which may be supplied to a client device **102** in response to a request from a client device **102**. The gallery may be a sequence of photographs and/or videos. Any of a text message, user drawings/ annotations, animations, photo filters may be associated with a photograph or video (e.g., as an overlay). In one embodiment, the gallery is available for a specified transitory period of time (e.g., a day, during an event, etc.).

FIG. 2 illustrates a process for registering users with common interests that desire to participate in posting to a gallery. This process may be implemented by the gallery module **144**. The gallery module **144** waits for a request for a gallery collection **200** from a client device **102**. In the event of a request (**200**—Yes), a gallery collection and enrollment prompts **202** are sent from the server **104** to a client device **102**.

Embodiments contemplate that a request could include an express request sent by a user. For example, a user may request to participate in a gallery by navigating to a ‘request’ screen from a user interface on the device display. In these examples, the user may select from any number of existing galleries or create a new gallery by keying in or otherwise describing the gallery. Another example of an express request to participate in a gallery may include an action on the part of the user from an annotation feature offered from an image. For instance, after a picture or image has been taken, some embodiments allow a user to add text, graphics, images, etc. to the picture/video. During this annotation process, the input and detection of a particular key or swipe may be used to indicate an intent to add that picture/video to a particular gallery. As an example, the use of a hashtag (“#”) or swipe added to the text “Clippers” may be used to submit the picture/video to a Clippers gallery.

In addition to express user requests to submit content to a gallery, passive requests are also contemplated. For example, the detection of a particular object in a picture or video (detected using, e.g., object recognition processes to detect an object or audio fingerprinting technologies to detect a song, etc.) could be used to prompt a user to join a gallery associated with the object or even automatically post to an existing gallery (e.g., with the user’s consent). For example, if a user

takes a picture or video of a Coca Cola bottle, upon detection of the bottle, the user may be asked if he or she wishes to participate in a Coca Cola gallery. Alternatively, the user may be asked if he or she wishes to post directly to a gallery without joining. In yet other embodiments, the user's video or picture may be posted directly to the gallery (perhaps after receiving a blanket authorization at some point earlier).

In additional embodiments, a revenue sharing process may be implemented to facilitate payments to the user for use of his or her image. For example, a user image may be added to a gallery sponsored by Coca Cola and in return for contributing to Coca Cola's gallery, a user may receive compensation on a flat-fee, per view or revenue share basis.

FIG. 3 illustrates an example of a gallery collection 300 displayed on a client device 102. The gallery collection 300 may be supplied by activating an icon (such as icon 402 of FIG. 4). Alternately, the gallery may be supplied in accordance with the examples provided above. The gallery collection 300 includes individually listed galleries, such as 302 and an associated prompt 304. In this example, the prompt 304 is a radio button, selection of which results in a selected gallery. Hovering over or tapping the text description 302 of the gallery may result in the display of additional information about the gallery. In the case of "Clippers' Games" a gallery is formed during the course of each basketball game played by the Clippers. Thus, the gallery is a recurring gallery. Messages associated with the Clippers are posted during the course of each basketball game. Thus, a collection of messages is available for the transitory duration of each basketball game. Of course, other examples are also possible including availability for a set amount of time after the event (e.g., twenty-four hours, one week, etc.).

The next example in the gallery collection 300 is a concert. This is a single event gallery that lasts for a set amount of time after the duration of the event. The next example in the gallery collection 300 is for a shared interest in an object, such as roses. This may be an ongoing gallery that is used by registrants to post photographs or videos of roses.

The next example in the gallery collection 300 is for the band Guns N' Roses. This gallery is constructed to receive messages from individuals with a shared interest in the band. In one embodiment, individual songs from the band may be selected. Thereafter, messages that reference or incorporate the individual songs may be posted to the gallery.

The collection may also include a theme such as midnight. Messages generated on or around midnight are posted to the gallery. The messages may be identified by a timestamp associated with the message.

The collection may also include a theme such as "on the run". This gallery is constructed to receive messages from client devices that are in motion (as measured by an accelerometer, gyroscope, GPS signal and the like associated with the client device). Messages from such devices are posted to the gallery.

The collection may also include a theme such as "I like it hot . . ." to post messages when the temperature in a geolocation associated with a message exceeds some threshold (e.g., 90° F.). The geolocation may be where the message is generated. The temperature may be obtained for the specified geolocation by any number of online weather information resources or from a thermometer device built into the device.

A final option shown in FIG. 3 is a request to create a new gallery. Activating the associated radio button 304 may result in a set of prompts that allows a user to define a new gallery. The definition may include a gallery name, keywords associated with the gallery, objects associated with the gallery, and the like.

Returning to FIG. 2, the gallery module 144 receives enrollment or participation requests 204. In response to such requests, a user is registered with one or more selected galleries. Thus, a user registers with one or more selected galleries 206. Thereafter, any message relevant to a selected gallery is automatically routed to the selected gallery. This may be accomplished without the user separately designating the gallery as a destination for the message. A single message may be automatically routed to several galleries if the message has indicia relevant to each of the several galleries.

FIG. 4 illustrates a client device 102 that has taken a picture of a rose 400. The communication application 122 and/or gallery module 144 may be configured with instructions executed by the processor to recognize the rose (e.g., machine vision may be used to designate the object as a rose). If the user is registered with the rose gallery, the message is automatically routed to the rose gallery. An icon 402 may be supplied to annotate a message. Activation of the icon 402 may result in a text entry box 404 being supplied, along with a keyboard. The user may designate that the message includes a rose or may type in any other type of message. A message recipient list may be invoked through the icon 402 or through a swiping motion. The message recipient list is an existing list of contacts for the user. Each contact selected will receive a copy of the message via routing through the communication module 142. Thus, for this message there are intentionally designated message recipients. However, depending upon the number of galleries that a user is registered with, the message may be automatically forwarded to relevant galleries without the user designating such galleries for the message.

FIG. 5 illustrates operations associated with an embodiment of the gallery module 144. The top of the figure illustrates a set of message senders, i.e., Sender_1 through Sender_N. Each message sender is associated with a client device 102.

The server 104 receives messages 500 from any number of senders. Each message is evaluated to determine whether message parameters correspond to selected galleries 502. For example, if the user has registered for the roses gallery and generates the message shown in FIG. 4, then the message corresponds to a selected gallery (502—Yes). Any number of message parameters may be used. For example, in the case of the rose picture in FIG. 4, the rose may be a designated object from machine vision operations performed by the gallery module. Alternately, or in addition, text associated with the message may be a parameter that is evaluated for relevance to a selected gallery. For example, optical character recognition or word matching techniques may be used to link a message with a gallery. Each gallery may have an associated collection of key words and/or designated objects that are used to determine correspondence between a message and a gallery. Other message parameters may include a time stamp (relevant to the midnight gallery), speed indicia (relevant to the "on the run" gallery) and temperature (relevant to the "I like it hot . . ." gallery).

If the message does not have a parameter relevant to a selected gallery (502—No), then processing by the gallery module 144 is completed. The message is then routed in a standard manner by the communication module 142. If the message does have a parameter corresponding to a selected gallery (502—Yes), the message is posted to one or more galleries 504.

The gallery module 144 may include a curation interface that allows a gallery administrator to optionally curate the gallery 506. For example, the curation interface may allow the administrator to delete inappropriate or redundant messages. Alternately, machine vision and content rules may be used to

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automatically curate the gallery. In embodiments that include compensation to be paid to a user, the curation interface may be configured to make automatic payments to the users for the use of their pictures or videos. The final operation of FIG. 5 is to supply the gallery in response to requests 508 from any number of users.

Embodiments of the invention utilize galleries with specified transitory periods of time (e.g., a day, or during an event). Each gallery may include individual messages shown in sequence, where the individual messages are photographs or videos. Text may accompany a photograph or video, as shown in connection with FIG. 4.

An embodiment of the invention has a gallery with content set to an audio time line. In some embodiments, the audio time line could be a song or a video clip. As discussed in connection with FIG. 3, a band may have a designated gallery with a selectable song. If a user registers with a song then a message that incorporates the song may be posted to the gallery. Embodiments of the invention utilize short (e.g., 3-6 seconds) video messages. Therefore, a collection of messages can be constructed for different segments of the audio time line associated with a song. As a result, a single song may have an associated mash-up of video segments. Observe here that the audio time line determines the video content. Typically, video content is used to establish a sequence of videos. The use of the audio time line as a guiding factor results in interesting and artistic combinations of videos.

Instead of a song, the audio time line may be a narrative, such as a speech or a dialogue. For example, a "Gettysburg Address" gallery may be formed with a voice over of the famous speech by Abraham Lincoln. Video segments that include words from the speech may be combined to populate a complete audio time line for the speech. Consequently, a voice over of the speech may have an associated mash-up of video segments.

There are known techniques for evaluating audio content. In particular, there are online services, such as Shazam® and Soundhound®, which provide real-time identification of songs and other audio tracks. The gallery module 144 may be configured to access such online services and/or incorporate its own audio fingerprint identification techniques. The object recognition and fingerprinting operations disclosed herein may be performed on any of client device 102, server 104 or a third-party device (not shown).

As described above, embodiments contemplate that a user could be compensated by e.g., the audio time line owner or rights holder for helping to create and promote a particular song or content. Thus, a user that contributes to an audio time line could be compensated by some amount for each viewing of the time line.

FIG. 6 illustrates audio time line processing performed in accordance with an embodiment of the invention. The gallery module 144 receives messages 600 from any number of message senders (Sender_1 through Sender_N). Each message is evaluated for audio fingerprints 602. If there are no matches to known audio fingerprints (604—No), then the gallery module 144 processing is completed and the message is routed in a standard manner using communication module 142.

If matches with known audio fingerprints are established (604—Yes), a determination is made whether there is a selected gallery with the same audio fingerprint. That is, has the message sender registered with a gallery with the same audio fingerprint. If not (606—No), processing is complete. If so (606—Yes), the audio segment and corresponding video content are added to the audio time line 608. For example, the video message may have audio fingerprints for seconds 58

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through 66 of a video time line. The video message is then positioned at that location on the video time line.

It is then determined whether the audio time line is complete 610. If not (610—No), the processing of the message is completed and the process may wait for the submission of additional segments for possible inclusion into the audio time line. If so (610—Yes), a gallery is formed with video segments set to audio segments 612. The audio segments may be a master track of a song or narrative. Alternately, the audio segments from the videos themselves may be used. Different criteria may be used to determine whether and audio time line is complete. All time slots in the audio time line need not be filled.

The resultant gallery is then supplied to users in response to requests 614. Thus, users may obtain crowd sourced video mash-ups set to an audio time line.

Those skilled in the art will appreciate that the disclosed techniques provide improved technical results in the field of message combining and sharing. Messages are automatically shared with others that have a common interest, as expressed through a registration process. After the registration process, collections of messages are automatically generated based upon automated evaluation of message content. This automatic process may or may not be executed without a user interface and user input at the server. Thus, an autonomous message combining and sharing system is disclosed that omits the cost of a human operator and is able to operate as fast as a processor operates.

Embodiments of the invention include ephemeral galleries that reduce power consumption and administrative overhead. The ephemeral galleries may be configured for self-execution, for example, by setting message parameters that will establish inclusion in a gallery and setting a transitory gallery period defined by an open time and a close time. The gallery may be associated with a single ephemeral time period (e.g., in the case of a concert) or a recurring ephemeral time period (e.g., in the event of galleries for each basketball game played).

The crowd sourced galleries provide content from many perspectives. An embodiment of the invention establishes innovative video mash-ups set to an audio time line as opposed to a flow of video images. Thus, establishing a novel technique for message combining.

An embodiment of the present invention relates to a computer storage product with a non-transitory computer readable storage medium having computer code thereon for performing various computer-implemented operations. The media and computer code may be those specially designed and constructed for the purposes of the present invention, or they may be of the kind well known and available to those having skill in the computer software arts. Examples of computer-readable media include, but are not limited to: magnetic media, optical media, magneto-optical media and hardware devices that are specially configured to store and execute program code, such as application-specific integrated circuits ("ASICs"), programmable logic devices ("PLDs") and ROM and RAM devices. Examples of computer code include machine code, such as produced by a compiler, and files containing higher-level code that are executed by a computer using an interpreter. For example, an embodiment of the invention may be implemented using JAVA®, C++, or other object-oriented programming language and development tools. Another embodiment of the invention may be implemented in hardwired circuitry in place of, or in combination with, machine-executable software instructions.

The foregoing description, for purposes of explanation, used specific nomenclature to provide a thorough understand-

ing of the invention. However, it will be apparent to one skilled in the art that specific details are not required in order to practice the invention. Thus, the foregoing descriptions of specific embodiments of the invention are presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise forms disclosed; obviously, many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to best explain the principles of the invention and its practical applications, they thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as are suited to the particular use contemplated. It is intended that the following claims and their equivalents define the scope of the invention.

The invention claimed is:

1. A server computer in a content distribution system, comprising:

a processor; and

a memory coupled with the processor, the memory storing instructions executable by the processor to cause the server computer to:

receive a plurality of messages from a plurality of client devices, each message of the plurality of messages including a message parameter indicative of a characteristic of the message, and a photograph or a video;

analyze each message parameter and photograph or video to determine that the message parameter or photograph or video corresponds to one or more predetermined galleries by the characteristic of the message or by recognizing an object in the photograph or video, the one or more predetermined galleries each including a sequence of photographs or videos from a plurality of users sharing a common interest;

post the message to the one or more predetermined galleries;

receive a request for a selected gallery from the one or more client devices; and

supply the selected gallery in response to the request.

2. The server computer of claim 1, the memory further storing instructions executable by the processor to cause the server computer to curate the selected gallery according to instructions to remove selected photographs or videos.

3. The server computer of claim 1, the memory further storing instructions executable by the processor to cause the server computer to:

send a gallery collection and corresponding enrollment prompts to a user;

receive an enrollment request from the user for the selected gallery; and

register the user with the selected gallery.

4. The server computer of claim 3, wherein the instructions executable by the processor to cause the server computer to send a gallery collection and corresponding enrollment prompts to a user are executed in response to an express request from the user.

5. The server computer of claim 3, wherein the instructions executable by the processor to cause the server computer to send a gallery collection and corresponding enrollment prompts to a user are in response to an evaluation of content associated with the message.

6. The server computer of claim 1, wherein the memory stores further instructions executable by the processor to cause the server computer to supply prompts that solicit the definition of a new gallery.

7. The server computer of claim 6 wherein the prompts include prompts to solicit a gallery name.

8. The server computer of claim 6 wherein the prompts include prompts to solicit gallery keywords.

9. The server computer of claim 6 wherein the prompts include prompts to solicit a gallery object.

10. The server computer of claim 1 wherein the message parameter is a designated object in the photograph or video.

11. The server computer of claim 10 wherein the designated object is specified by a sender of the message.

12. The server computer of claim 1 where the parameter is a time stamp associated with the message.

13. The server computer of claim 1 wherein the parameter is speed indicia associated with a device that generates the message.

14. The server computer of claim 1 wherein the parameter is a temperature associated with the location at which the message is generated.

15. The server computer of claim 1 wherein the selected gallery is available for a specified transitory period of time.

16. The server computer of claim 1 wherein the message has text accompanying the photograph or the video.

17. The server computer of claim 1 wherein the memory stores instructions executed by the processor to automatically pay a message sender when a message from the sender is posted to the selected gallery.

18. A method comprising:

receiving, at a server computer, a plurality of messages from a plurality of client devices, each message of the plurality of messages including:

a message parameter indicative of a characteristic of the message, and

a photograph or a video;

analyzing, by the server computer, each message parameter and photograph or video to determine that the message parameter or photograph or video corresponds to one or more predetermined galleries by the characteristic of the message or by recognizing an object in the photograph or video, the one or more predetermined galleries each including a sequence of photographs or videos from a plurality of users sharing a common interest;

posting, by the server computer, the message to the one or more predetermined galleries;

receiving, at the server computer, a request for a selected gallery from the one or more client devices; and

supplying, by the server computer, the selected gallery in response to the request.

19. The method of claim 18, wherein analyzing each message parameter and photograph or video to determine that the message parameter or photograph or video corresponds to one or more predetermined galleries further comprises utilizing audio fingerprint identification techniques to determine that the message parameter or photograph or video corresponds to one or more predetermined galleries.

20. The method of claim 1, wherein the common interest includes at least one of a group comprising: a particular object, a sports team, a sports event, a concert, a time of day, a motion, and a temperature in a geolocation.